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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/684,625	10/14/2003	Scot A. Reader		3715

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Scot A. Reader, Esq.
1320 PEARL STREET
SUITE 228
BOULDER, CO 80302

EXAMINER	
GILLIS, BRIAN J	

ART UNIT	PAPER NUMBER
2141	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/684,625	READER, SCOT A.	
	Examiner	Art Unit	
	Brian J. Gillis	2141	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 October 2003 and 01 November 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) *14-19 and 24-44* is/are pending in the application.

4a) Of the above claim(s) *14-19 and 24-27* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *28-44* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *01202004 and 11012004*.
4) ☒ Interview Summary (PTO-413) Paper No(s)/Mail Date. *08162007*.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of Group II (claims 28-44) during the interview on August 13, 2007 is acknowledged.

Claim Objections

Claim 1 is objected to because of the following informalities: The claim recites the abbreviation LAN in line 2 without a definition of the term. Appropriate correction is required.

Claim 34 is objected to because of the following informalities: The claim recites the abbreviation RADIUS in line 2 without a definition of the term. Appropriate correction is required.

Claim 34 is objected to because of the following informalities: The claim recites the abbreviation EAP in line 2 without a definition of the term. Appropriate correction is required.

Claim 36 is objected to because of the following informalities: The claim recites the abbreviation IGMP in line 2 without a definition of the term. Appropriate correction is required.

Claim 37 is objected to because of the following informalities: The claim recites the abbreviation IP in line 1 without a definition of the term. Appropriate correction is required.

Claim 38 is objected to because of the following informalities: The claim recites the abbreviation IP in line 2 without a definition of the term. Appropriate correction is required.

Claim 39 is objected to because of the following informalities: The claim recites the abbreviation IP in line 1 without a definition of the term. Appropriate correction is required.

Claim 39 is objected to because of the following informalities: The claim recites the abbreviation IGMP in line 2 without a definition of the term. Appropriate correction is required.

Claim 39 is objected to because of the following informalities: The claim recites the abbreviation CGMP in line 2 without a definition of the term. Appropriate correction is required.

Claim 40 is objected to because of the following informalities: The claim recites the abbreviation LAN in line 2 without a definition of the term. Appropriate correction is required.

Claim 41 is objected to because of the following informalities: The claim recites the abbreviation RADIUS in line 2 without a definition of the term. Appropriate correction is required.

Claim 41 is objected to because of the following informalities: The claim recites the abbreviation EAP in line 2 without a definition of the term. Appropriate correction is required.

Claim 43 is objected to because of the following informalities: The claim recites the abbreviation CGMP in line 2 without a definition of the term. Appropriate correction is required.

Claim 44 is objected to because of the following informalities: The claim recites the abbreviation IP in line 2 without a definition of the term. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 28 and 40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 28 recites the limitation "the information" in line 13. There is insufficient antecedent basis for this limitation in the claim.

Claim 40 recites the limitation "the information" in line 13. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 28-30, 36, 37, 40 and 43 are rejected under 35 U.S.C. 102(e) as being anticipated by Zhou et al (US PGPUB US2005/0091313).

(Claim 28 discloses) in a data communication network, a method performed on a second node communicating with a first node over a LAN link for controlling access of the first node to a multicast group, comprising the steps of: receiving from the first node authentication information (Zhou et al shows the host sends user information to the router (paragraphs 60-62).); transmitting to an authentication server the authentication information (Zhou et al shows the router extracts information and sends it to an authentication server for authentication (paragraph 62).); receiving from the authentication server in response to the authentication information multicast group authorization information (Zhou et al shows the authentication server returns a response (paragraph 62).); and storing in a database on the second node information based on the multicast group authorization information (Zhou et al shows the router stores the authorization information in a table (paragraph 62).); then, receiving from the first node a management packet having multicast group membership information (Zhou et al shows the host sends an IGMP message (paragraph 61).); comparing for conformance the multicast group membership information with the information stored in the database (Zhou et al shows the IGMP message is compared to the authorization information (paragraph 62).); and authorizing transmission to the first node of data packets addressed to a multicast group in response to a finding of conformance (Zhou et al shows the host is authorized for access (paragraph 62 and 63)).

(Claim 29 discloses) the method of claim 28 wherein the authentication information comprises a user credential (Zhou et al shows a user ID is used as authentication information (paragraph 60)).

(Claim 30 discloses) the method of claim 28 wherein the multicast group authorization information is indicative of one or more multicast groups (Zhou et al shows the authorization information is indicative of one or more groups (paragraph 62)).

(Claim 36 discloses) the method of claim 28 wherein the management packet comprises an IGMP membership report (Zhou et al shows the data is sent from the host in a IGMP message (paragraph 62)).

(Claim 37 discloses) the method of claim 28 wherein the data packets are IP Multicast data packets (Zhou et al shows the use of IP Multicast data (paragraph 1)).

(Claim 40 discloses) in a data communication network, a method performed on a second node communicating with a first node over a LAN link for controlling access of the first node to a multicast group, comprising the steps of: receiving from the first node authentication information (Zhou et al shows the host sends user information to the router (paragraphs 60-62).); transmitting to an authentication server the authentication information (Zhou et al shows the router extracts information and sends it to an authentication server for authentication (paragraph 62).); receiving from the authentication server in response to the authentication information multicast group authorization information (Zhou et al shows the authentication server returns a response (paragraph 62).); and storing in a database on the second node information based on the multicast group authorization information (Zhou et al shows the router stores the

authorization information in a table (paragraph 62).); then, receiving from a router a management packet having multicast group membership information regarding the first node (Zhou et al shows the host sends an IGMP message (paragraph 61).); comparing for conformance the multicast group membership information with the information stored in the database (Zhou et al shows the IGMP message is compared to the authorization information (paragraph 62).); and authorizing transmission to the first node of data packets addressed to a multicast group in response to a finding of conformance (Zhou et al shows the host is authorized for access (paragraph 62 and 63)).

(Claim 43 discloses) the method of claim 40 wherein the management packet comprised a CGMP join message (Zhou et al shows the use of a CGMP join message (paragraph 10)).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 31-33, 35, and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhou et al (US PGPUB US2005/0091313) in view of Kwan et al (US PGPUB US2005/0055570).

Claim 31 discloses the method of claim 28 further comprising the step of receiving from the authentication server in association with the multicast group authorization information an identifier of a port on the second node over which the first

node and the second node communicate. Zhou et al teaches the limitations of claim 28 as recited above. It fails to teach receiving an identifier of a port on the second node over which the first node and the second node communicate. Kwan et al teaches the authentication server assigns the port for devices to use to communicate (paragraph 76).

Zhou et al and Kwan et al are analogous art because they are both related to controlled access of data over a network.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the port assignment feature in Kwan et al with the system in Zhou et al because network access is able to be regulated (Kwan, paragraph 12).

Claim 32 discloses the method of claim 31 wherein the port is a physical port. Kwan et al further teaches assigning to ports, which is widely known in the art to include physical ports (paragraph 43).

Claim 33 discloses the method of claim 31 wherein the port is a logical port. Kwan et al further teaches assigning to ports, which is widely known in the art to include logical ports (paragraph 43).

Claim 35 discloses the method of claim 28 wherein the storing step further comprises adding an entry to the database associating a port on the second node over which the first node and the second node communicate with information indicative of one or more multicast groups. Zhou et al teaches the limitations of claim 28 as recited above. It fails to teach assign an entry to the database associating a port on the second node over which the first node and second node communicate. Kwan et al teaches

using access control lists which store the port information along with access information (paragraph 63).

Zhou et al and Kwan et al are analogous art because they are both related to controlled access of data over a network.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the port assignment storing feature in Kwan et al with the system in Zhou et al because network access is able to be regulated (Kwan, paragraph 12).

Claim 42 discloses the method of claim 40 wherein the storing step further comprises adding an entry to the database associating a port on the second node over which the first node and the second node communicate with information indicative of one or more multicast groups. Zhou et al teaches the limitations of claim 40 as recited above. It fails to teach assign an entry to the database associating a port on the second node over which the first node and second node communicate. Kwan et al teaches using access control lists which store the port information along with access information (paragraph 63).

Zhou et al and Kwan et al are analogous art because they are both related to controlled access of data over a network.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the port assignment storing feature in Kwan et al with the system in Zhou et al because network access is able to be regulated (Kwan, paragraph 12).

Claims 34 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhou et al (US PGPUB US2005/0091313) in view of Norman et al (US Patent #7,082,535).

Claim 34 and 41 disclose the method of claims 28 and 40 wherein the multicast group authorization information is a RADIUS attribute within an EAP success packet. Zhou et al teaches the limitations of claims 28 and 40 as recited above. It fails to teach the multicast group authorization information is a RADIUS attribute within an EAP success packet. Norman et al teaches returning an access granted message from a RADIUS server in an EAP success message (column 5, line 54 – column 6, line 4).

Zhou et al and Norman et al are analogous art because they are both related to controlled access to data over a network.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the access granted message in Norman et al with the system in Zhou et al because authentication and authorization is able to be managed (Norman, column 1, lines 37-42).

Claims 38, 39, and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhou et al (US PGPUB US2005/0091313) in view of Mahajan et al (US PGPUB US2002/0186694).

Claims 38 and 44 disclose the method of claims 28 and 40 wherein the second node supports a plurality of IP Multicast extension protocols enhanced with respective authorization checks. Zhou et al teaches the limitations of claims 28 and 40 as recited above. It fails to teach the second node supports a plurality of IP Multicast extension

protocols enhanced with respective authorization checks. Mahajan et al teaches a switch is able to detect and support multiple protocols (paragraphs 22 and 23).

Zhou et al and Mahajan et al are analogous art because they are both related to multicasting of packets.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the multiple protocol capable switch in Mahajan et al with the system in Zhou et al because efficient network multicast handling is provided (Mahajan, paragraph 1).

Claim 39 discloses the method of claim 38 wherein the IP Multicast extension protocols comprise IGMP Snooping and CGMP. Mahajan et al further teaches using various protocols including IGMP and CGMP (paragraphs 22 and 23).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hayashi et al (US PGPUB US2003/0147392) teaches a multicast communication system. Hanna et al (US Patent #7,010,690) teaches authenticating and authorizing a user device. Lim (US Patent #6,728,884) teaches integrating heterogeneous authentication and authorization mechanisms into an application access control system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian J. Gillis whose telephone number is 571-272-7952. The examiner can normally be reached on M-F 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on 571-272-3880. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Brian J Gillis
Examiner
Art Unit 2141

BJG
BJG
8/16/2007

JASON CARDONE
SUPERVISORY PATENT EXAMINER